

Animation MPEG Conversion Tips

Goal: Guide to convert a CDAT/VCDAT Sun raster animation file into multiple individual *.mpeg files.

Before running the tutorial below, you must create and save an animation file. To create an animation file see the following animation help: [Getting Started with VCDAT: Animation](#) and [Basic Plotting: Animate](#) .

Note this script uses ImageMagick to convert the Sun raster file to *.mpeg. Therefore you must have ImageMagick installed on your machine.

C Shell script to convert a *.ras file to individual *.mpeg files (ras2mpeg):

```
#!/bin/csh
echo "...dividing *.ras file into individual frame files"
convert $1.ras $1.temp.%04d.ras
echo "...swapping red and blue channels"

foreach d ($1.temp.*.ras)
    convert $d \( +clone -channel red -fx b +channel \) +swap \
        -channel blue -fx v.r +channel rb_swapped.$d
end

echo "...red and blue channels have been swapped"
/bin/rm $1.temp.*.ras
echo "...original individual frame files have been deleted"
echo "...creating *.mpeg file"
convert rb_swapped.$1.temp.*.ras $1.mpeg
echo "...*.mpeg file has been created"
echo "...deleting rb_swapped* files"
/bin/rm rb_swapped.$1.temp.*.ras
echo "...rb_swapped* files have been deleted"
echo "***END SCRIPT***"
```

To execute the script type the following:

```
% chmod 777 ras2mpeg
% ./ras2mpeg filename
```

where ras2mpeg is the name of the script, and filename is the name of the VCDAT-generated Sun raster file (Do not include the ".ras".)

If you receive the following error:

```
% ./ras2mpeg test
...dividing *.ras file into individual frame files
...swapping red and blue channels
...red and blue channels have been swapped
...original individual frame files have been deleted
...creating *.mpeg file
sh: mpeg2encode: command not found
convert: Delegate failed `mpeg2encode' "%i" "%o"'.
...*.mpeg file has been created
...deleting rb_swapped* files
...rb_swapped* files have been deleted
***END SCRIPT***
```

Then you need to install the external MPEG-2 Encoder / Decoder software. The MPEG software can be found at: <ftp://ftp.mpeg.org/pub/mpeg/mssg/>, or the web site: <http://www.mpeg.org/MSSG/>. Retrieve the [mpeg2vidcodec_v12.tar.gz](#) compressed tar file and place the mpeg2encode and mpeg2decode executables in the appropriate /bin directory (e.g., /usr/local/bin).